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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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5073	7590	02/17/2006	EXAMINER	
BAKER BOTTS L.L.P.			CORRIELUS, JEAN M	
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SUITE 600			PAPER NUMBER	
DALLAS, TX 75201-2980			2162	

DATE MAILED: 02/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/844,043

Applicant(s)

HARVEY, RICHARD HANS

Examiner

Jean M. Corrielus

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9,11-17,19-22,24-28 and 30-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11-17,19-22,24-28 and 30-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/18/05.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the amendment filed on November 18, 2005, in which claims 1, 3-9, 11-17, 19-22, 24-28, and 30-36 are presented for further examination.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 18, 2005 has been entered.

Information Disclosure Statement

3. The information disclosure statement (IDS) filed on November 18, 2005 complies with the provisions of M.P.E.P 609. It has been placed in the application file. The information referred to therein has been considered as to the merits.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 5, 13 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 5, 13 and 32 recite "it is" line 2 respectively. Pronouns are not permitted, only what is being referred by "it" should be set forth in the claim. Applicants

Art Unit: 2162

are advised to amend the claim so solve the 112 rejection set forth in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3-9, 11-17, 19-22, 24-28 and 30-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (see specification pages 1-6, line 11) and Corn et al., (hereinafter "Corn") US Patent no. 6,356,892.

As to claim 1, Applicant's admitted prior art discloses the claimed "receiving a service query, the service query comprising a filter that comprises one or more filter items" as a X.500 search service is performed using arguments which indicate where to start the search, the condition to apply to the search (filters) and what information should be returned (selection), wherein a user may wish to interrogate a directory in order to locate titles of managers of an organization who have salaries above \$60,000.00, and have a mobile phone listed in the database or who are not in certain offices of the organization, wherein such a request could be carried by way of a search query wherein: title=manager AND salary > 60000 AND (mobilePhone present OR (NOT locality=Melb OR locality = Syd), which can be expressed as a logical expression A.B.(C+!(D+E)); the filter items are presented by letters (A,B, C, D and E) (see applicant's admitted prior art, specification page 1, line 18-page 2 line 11); "expanding the filter of the service query" as a logic principle, boolean logic, an arbitrarily complex search filter can be expanded to a number of

Art Unit: 2162

relatively simpler terms, by removing the brackets in the complex search filter, resulting in an expression which is an OR of ANDs which is also known as a sum of term; wherein the expression $!(A.B)$ results in the filter terms : $!A + !B$ (see applicant's admitted prior art, specification page 3, line 12-page 4 line 20). However, applicant's admitted prior art does not explicitly disclose the use of "applying a condition test to each filter item of the filter"; "determining if the filter item comprises a NOT connective"; and "determining if the filter item comprises one of a type only filter item or a type and value filter item".

On the other hand, Corn disclose the claimed "applying a condition test to each filter item of the filter" (col.7, lines 50-55; col.8, lines 40-67); "determining if the filter item comprises a NOT connective" (col.7, lines 50-55; col.8, lines 40-67); and "determining if the filter item comprises one of a type only filter item or a type and value filter item" (col.7, lines 50-55; col.8, lines 40-67). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of the cited references, wherein the filter expansion of the query service, as disclosed by the applicant's admitted prior art would incorporate the use of applying a test condition to each filter item by determining if the filter item comprises a NOT connective and comprises one of a type only filter item or a type value filter item. One having ordinary skill in the art would have found it motivated to use such a combination for the purpose of providing better performance results.

Art Unit: 2162

As to claim 3, Corn discloses the claimed “applying a logical methodology to evaluate NOT connectives associated with type only filter items” (col.7, lines 50-55; col.8, lines 40-67).

As to claim 4, Corn discloses the claimed “wherein the logical methodology comprises a subtraction” (col.8, lines 56-60).

As to claim 5, Corn discloses the claimed “if it is determined that the filter item comprises a NOT connective and a type and value filter item pushing the NOT connective associated with the type and value filter item inside the filter item, resulting in changing an operator inside the filter item” (col.8, lines 40-60).

As to claims 6-7, Applicant’s admitted prior art discloses the claimed wherein the condition test further includes determining if each filter item can be pre-evaluated to false, such that the expanded term can be ignored as using logic principle, boolean logic, an arbitrarily complex search filter can be expanded to a number of relatively simpler terms, by removing the brackets in the complex search filter, resulting in an expression which is an OR of ANDs which is also known as a sum of term; wherein the expression $\neg(A.B)$ results in the filter terms : $\neg A + \neg B$ (see applicant’s admitted prior art, specification page 3, line 12-page 4 line 20).

As to claim 8, Applicant’s admitted prior art discloses the claimed wherein the filter is expanded to a minimum set of terms as using logic principle, boolean logic, an arbitrarily complex search filter can be expanded to a number of relatively simpler terms, by removing the brackets in the complex search filter, resulting in an expression which is an OR of ANDs which is also known

Art Unit: 2162

as a sum of term; wherein the expression (A.B) results in the filter terms: !A + !B (see applicant's admitted prior art, specification page 3, line 12-page 4 line 20).

Claims 9 and 11-16 are system of claims for performing the method of claims 1 and 3-8 above. They are, therefore, rejected under the same rationale.

Claim 36 is software for executing the method of claim 1 above. It is, therefore, rejected under the same rationale.

As to claim 17, Applicant's admitted prior art discloses the claimed "receiving a service query" as a X.500 search service is performed using arguments which indicate where to start the search, the condition to apply to the search (filters) and what information should be returned (selection), wherein a user may wish to interrogate a directory in order to locate titles of managers of an organization who have salaries above \$60,000.00, and have a mobile phone listed in the database or who are not in certain offices of the organization, wherein such a request could be carried by way of a search query wherein: title=manager AND salary > 60000 AND (mobilePhone present OR (NOT locality=Melb* OR locality = Syd*))), which can be expressed as a logical expression A.B.(C+!(D+E)); the filter items are presented by letters (A,B, C, D and E) (see applicant's admitted prior art, specification page 1, line 18-page 2 line 11). However, Applicant's admitted prior art does not explicitly disclose the claimed "applying a filter to the service query resulting in zero or more filter items"; applying, if one or more filter items results, a condition test to each filter item to determine whether the filter item comprises one of a type only filter item or a type and value filter item". On the other hand, Corn discloses the claimed "applying a filter to the

Art Unit: 2162

service query resulting in zero or more filter items” (col.2, lines 60-63; col.3, lines 2-8col.3, lines 10-21; col.5, lines 40-42; col.7, lines 50-55; col.8, lines 40-67); “applying, if one or more filter items results, a condition test to each filter item to determine whether the filter item comprises one of a type only filter item or a type and value filter item” col.7, lines 50-55; col.8, lines 40-67). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of the cited references, wherein the filter expansion of the query service, as disclosed by the applicant’s admitted prior art would incorporate the use of applying a test condition to each filter item by determining if the filter item comprises a NOT connective and comprises one of a type only filter item or a type value filter item. One having ordinary skill in the art would have found it motivated to use such a combination for the purpose of providing better performance results.

As to claim 19, Corn discloses the claimed “evaluating the filter item in accordance with a logical methodology if the filter item is type only form” ” (col.7, lines 50-55; col.8, lines 40-67).

As to claim 20, Corn discloses the claimed “wherein the logical methodology comprises a subtraction” (col.8, lines 56-60).

As to claim 21, Applicant should duly note that Corn discloses and SQL sub query which is generated for each LDAP filter element according to a set of translation rules, wherein such SQL sub query contain a relational database schema specified using conventional ANSI SQL language, wherein such a schema defines the tables that compose an application, along with their fields, and descriptive fields. Because relational schema are well understood, and ANSI SQL

Art Unit: 2162

syntax is well documented, the primary task of the LDAP filter element is to map the syntax LDAP query to the corresponding ANSI SQL syntax. Therefore, Corn discloses the claimed “wherein the subtraction method ' comprises using an ANSI SQL “except” clause.

As to claim 22, Corn discloses the claimed “wherein the subtraction method comprises transforming each filter item to a form that contains fewer or no NOT connectives” (col.7, lines 50-55).

As to claim 24, Corn discloses the claimed “adding, if the filter item is a type and value form SQL representing the filter item to an expression to be evaluated', which may involve at least one table join” (col.10, lines 55-67).

As to claim 25, Corn discloses the claimed “if the filter item is an inverse of the type and value filter item, pushing the NOT connective inside the filter item” (col.8, lines 40-50).

As to claim 26, Corn discloses the claimed “applying the pushed NOT connective to an operator” (col.8, lines 40-50).

As to claim 27 Corn discloses the claimed “applying the pushed NOT is effected by inverting the operator” (col.8, lines 40-50).

Art Unit: 2162

As to claim 28, Applicant's admitted prior art discloses the claimed "a plurality of tables, each table comprising a plurality of rows and columns, operable to store arbitrary data, at least one of the tables has comprising information for resolving filters that comprise at least one filter item in a search service" as a X.500 search service is performed using arguments which indicate where to start the search, the condition to apply to the search (filters) and what information should be returned (selection), wherein a user may wish to interrogate a directory in order to locate titles of managers of an organization who have salaries above \$60,000.00, and have a mobile phone listed in the database or who are not in certain offices of the organization, wherein such a request could carried by way of a search query wherein: title=manager AND salary > 60000 AND (mobilePhone present OR (NOT locality=Melb OR locality = Syd))), which can express as a logical expression A.B.(C+!(D+E)); the filter items are presented by letters (A,B, C, D and E) (see applicant's admitted prior art, specification page 1, line 18-page 2 line 11). However, Applicant's admitted prior art does not explicitly disclose the claimed a condition tester operable to determine as whether each filter item comprises a NOT connective; and whether each filter item is comprises a type only filter item or a type and value filter item". On the other hand, Corn discloses the claimed "a condition tester operable to determine as whether each filter item comprises a NOT connective; and whether each filter item is comprises a type only filter item or a type and value filter item" (col.2, lines 60-63; col.3, lines 2-8col.3, lines 10-21; col.5, lines 40-42; col.7, lines 50-55; col.8, lines 40-67). Therefore, it would have bee obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of the cited references, wherein the filter expansion of the query service, as disclosed by the applicant's admitted prior art would incorporate the use of applying a test condition to each filter item by determining if the filter item comprises a NOT connective and comprises one of a type only filter

Art Unit: 2162

item or a type value filter item. One having ordinary skill in the art would have found it motivated to use such a combination for the purpose of providing better performance results.

As to claim 30, Corn discloses the claimed “wherein a logical methodology is applied to evaluate NOT connectives associated with type only filter items” (col.7, lines 50-55; col.8, lines 40-67).

As to claim 31, Corn discloses the claimed “wherein the logical methodology comprises a subtraction” (col.8, lines 56-60).

As to claim 32, Corn discloses the claimed “wherein, if it is determined that the filter item comprises a NOT connective and a type and value filter item, a NOT connective associated with a type and value filter item is pushed inside the filter item resulting in changing an operator inside the filter item “ (col.8, lines 40-60).

As to claims 33-35, Applicant’s admitted prior art discloses the claimed wherein the condition test further includes determining if each filter item can be pre-evaluated to false or true, such that the expanded term can be ignored as using logic principle, boolean logic, an arbitrarily complex search filter can be expanded to a number of relatively simpler terms, by removing the brackets in the complex search filter, resulting in an expression which is an OR of ANDs which is also known as a sum of term; wherein the expression $!(A.B)$ results in the filter terms : $!A + !B$ (see applicant’s admitted prior art, specification page 3, line 12-page 4 line 20).

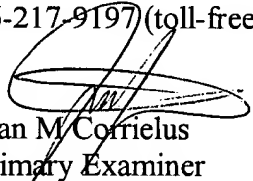
Art Unit: 2162

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean M. Corrielus whose telephone number is (571) 272-4032. The examiner can normally be reached on 10 hours shift.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jean M. Corrielus
Primary Examiner
Art Unit 2162

February 2, 2006